



**SANYO**

**SANYO  
4-BAND 2-AUDIO-CHANNEL  
PORTABLE RADIO  
RP 8252/8251  
SERVICE MANUAL**



**A PRODUCT OF SANYO ELECTRIC CO., LTD.**

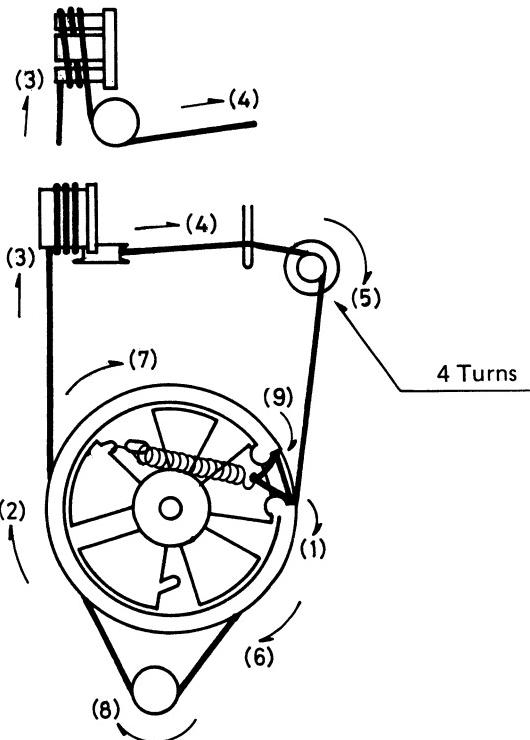
## SPECIFICATIONS

---

Frequency Ranges: (#RP8251SS/AS)	MW 510-1605 kHz SW1 2.3-7.3 MHz SW2 7.3-22.0 MHz FM 87.5-108 MHz	D105 1S188AM D106 VM11T D107 DS442 D108 DS442	AM AGC Limiter Blank
Frequency Ranges: (#RP 8252E/ZM/G)	LW 150-350 kHz MW 510-1605 kHz SW 5.95-18.0 MHz FM 88-108 MHz	D301 1S188FM D302 1S188AM D303 1S188FM D304 1S188FM	FM Limiter FM Limiter AM Detector FM Discriminator
Intermediate Frequency:	AM 455 kHz (RP 8251SS/AS) AM 460 kHz (RP 8252E/ZM) AM 470 kHz (RP 8252G) FM 10.7 MHz	D305 DS442 D306 MV11T D701 DS131 D702 DS132	Meter Limiter Rectifier Rectifier
Transistors:	C101 2SC930E FM RF Amplifier Q102 2SC930D FM Converter Q103 2SC930D AM Converter Q301 2SC930E FM/AM IF Amplifier Q302 2SC930D FM/AM IF Amplifier Q303 2SC930E FM/AM IF Amplifier Q304 2SC930D FM IF Amplifier Q305 2SC536F Meter Q701 2SC536E Audio Amplifier Q702 2SC536G Tweeter Driver Q703 2SB324E Tweeter Audio Output Q704 2SB324E Tweeter Audio Output Q705 2SC536F Woofer Audio Amplifier Q706 2SC536G Woofer Driver Q707 2SB474R Woofer Audio Output Q708 2SB474R Woofer Audio Output Q709 2SB187R Voltage Regulator D101 1S188FM FM Limiter D102 1S553 FM AFC D103 DS442 SW Limiter D104 DS442 SW1/LW Limiter	Sensitivities:  Audio Output:  Power Source:  Current Drain:  Speakers:  Dimensions:  Weight:	AM Limiter Blank FM Limiter AM Detector FM Discriminator FM Discriminator Meter Limiter Rectifier Rectifier Regulator (for 50mW output) (for 50mW output) (for 50mW output) (for 50mW output) (for 50mW output) (for 30dB S/N) Maximum 4.0W Undistorted 2.7W DC 6V (Four "D" size batteries) AC 120/200/240V for model RP 8251SS/AS AC 220V for model RP 8252 G/E AC 120/220/240V for model RP 8252 ZM No signal 60mA Maximum 1200mA Tweeter 60mm Permanent Dynamic, 4 ohms Woofer 120mm Permanent Dynamic, 8 ohms 236mm(W) x 252mm(H) x 108mm(D) (9-1/4" x 10" x 4-1/4") Approx. 2100g. (4-5/8 lbs.)

## DIAL CORD STRINGING

---



## PARTS LIST

Part No.	Description	Q'ty	Part No.	Description	Q'ty																																																																																																																																																																																																																																																																																																																																																																											
<b>PACKING</b>																																																																																																																																																																																																																																																																																																																																																																																
141-6-411T-62100	Instruction Book, RP 8252 E for Continental	1	141-2-331T-02200	Battery Holder	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-411T-62100	Instruction Book, RP 8252 ZM	1	141-2-538T-02700	Drum, Chassis mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-411T-62101	Instruction Book, RP 8252 G, for U.K.	1	141-2-567T-00800	Pulley Shaft, Drum mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-411T-62000	Instruction Book, RP 8251 SS/AS	1	141-2-411T-06300	Plate Nut, Pulley Shaft mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-141T-05905	Individual Carton, RP 8252 E, for Continental	1	141-2-446T-05500	Plastic Cushion, Indicator Upper	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-141T-05902	Individual Carton, RP 8252 ZM, for Continental	1	141-2-446T-05200	Plastic Cushion, Tweeter Speaker mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-141T-05904	Individual Carton, RP 8252 G, for U.K.	1	141-2-371T-06500	Bracket, Transformer mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-141T-05901	Individual Carton, RP 8251 SS, for general market	1	123-2-376R-10600	Spacer, Tuning Capacitor mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-141T-07000	Individual Carton, RP 8251 AS, for Australia	1	123-2-538R-00800	Drum, Tuning Capacitor mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-311T-02000	Top Pad, for Australia	1	123-2-481R-11800	Spring Coil	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-144T-21500	Pad	2	141-2-661T-16000	Pulley, Pulley Shaft mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-231T-04200	Polyethylene Bag, Unit, RP 8252 G	1	123-2-567R-11800	Pulley Shaft, P.C.B. mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
	Polyethylene Bag, 350 x 500mm, Unit, RP 8252 E/RP 8251	1	123-0-566R-13900	Tuning Shaft Assembly	1																																																																																																																																																																																																																																																																																																																																																																											
	Polyethylene Bag, 100 x 200mm	1		Rubber Cushion, 3.5 x 6 x 3.5mm, Bracket	2																																																																																																																																																																																																																																																																																																																																																																											
141-6-453R-00100	Serial No. Sheet	1		Soft Tape, 10 x 10 x 3mm, Socket	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-176T-00100	Shoulder Band	1		Plastic Cushion, Indicator	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-472T-05603	Label, Caution, RP-8252 ZM/RP 8251 SS	1	<b>CHASSIS</b>																																																																																																																																																																																																																																																																																																																																																																													
141-6-472R-13400	Label, Caution, RP 8251 AS	1	141-6-472R-30620	Label, FTZ, RP 8252 E	1	141-2-446T-05601	Battery Holder	1	123-6-472R-34800	Label, Made in Japan, RP 8252 G	1		Drum, Chassis mtg.	1	123-6-451R-11700	Guarantee Card, RP 8252 G	1		Pulley Shaft, Drum mtg.	1	<b>CABINET</b>						141-0-111T-214912	Cabinet Assembly, Front, RP 8252 E	1	141-2-567-00800	Plate Nut, Pulley Shaft mtg.	1	141-0-126T-136916	Back Lid Assembly, RP 8252 E	1	4-151T-16000	Plastic Cushion, Indicator Upper	1	141-0-111T-214913	Cabinet Assembly, Front, RP 8252 ZM	1	4-151T-15900	Plastic Cushion, Tweeter Speaker mtg.	1	141-0-126T-136912	Back Lid Assembly, RP 8252 ZM	1	4-612T-02605	Bracket, Transformer mtg.	1	141-0-111T-214912	Cabinet Assembly, Front, RP 8252 G	1	4-511T-05900	Spacer, Tuning Capacitor mtg.	1	141-0-126T-136914	Back Lid Assembly, RP 8252 G	1	4-256T-80400	Drum, Tuning Capacitor mtg.	1	141-0-111T-214911	Cabinet Assembly, Front, RP 8251 SS/AS	1	or 4-256T-80471	Spring Coil	1	141-0-126T-136911	Back Lid Assembly, RP 8251 SS/AS	1	or 4-256T-80472	Pulley, Pulley Shaft mtg.	1	141-0-210T-002912	Bracket Assembly, Dial Scale & Mechanism, RP 8252	1	or 4-256T-80473	Pulley Shaft, P.C.B. mtg.	1	141-2-146T-03402	Dial Scale, RP 8252	(1)	or 4-256T-80474	Tuning Shaft Assembly	1	141-2-210T-00200	Bracket	(1)	4-244R-12200	Rubber Cushion, 3.5 x 6 x 3.5mm, Bracket	2	141-2-329T-03300	Reflector	(1)	4-235T-26800	Soft Tape, 10 x 10 x 3mm, Drum	1	141-2-538T-02900	Drum	(1)	4-235T-26900	Plastic Cushion, Indicator	1	141-2-581T-02300	Gear, Drum mtg.	(1)	4-235T-29700	Plastic Cushion, Tweeter Speaker mtg.	1	141-2-851T-81700	Spring Coil, Gear mtg.	(1)	4-235T-23100	Bracket, Transformer mtg.	1	141-2-853T-37100	Spring Plate	(1)	4-243T-76401	Spacer, Tuning Capacitor mtg.	1	123-2-210R-20100	Bracket, Gear Shaft	(1)	4-243R-14501	Drum, Chassis mtg.	1	123-2-581R-11100	Gear, Dial Scale	(1)	4-243T-74900	Pulley Shaft, Drum mtg.	1	R-Y112304	Type Screw, Pan Hd. 2.3 x 4mm	(1)	4-243T-73971	Pulley Shaft, P.C.B. mtg.	1	141-0-210T-002911	Bracket Assembly, Dial Scale & Mechanism, RP 8251	1	4-234T-03100	Tuning Shaft Assembly	1	141-2-146T-03401	Dial Scale, RP 8251	(1)	141-2-381T-01800	Power Cord Assembly, RP 8252E	1		Rubber Cushion, 3.5 x 6 x 3.5mm, Light	(1)	141-2-381T-01800	Power Cord Assembly, RP 8252 ZM	1		Rubber Cushion, 5 x 10 x 13mm, Speaker	(1)	141-2-381T-01800	Power Cord Assembly, RP 8252 G	1	141-2-161T-22400	Push Button, Light	(1)	141-2-336T-01800	Fuse 1.25A (SEMKO)	1	141-0-128T-02300	Battery Lid Assembly	(1)	141-2-336T-01800	Bracket, Fuse	2	141-2-372T-03300	Bracket, Speaker mtg. (Large)	(1)	123-2-471R-10400	Core, Q102,103 mtg.	2	141-2-372T-03100	Bracket, Speaker mtg. (Small)	(1)	141-2-135T-32200	Cover, Power Socket mtg.	1	141-2-135T-32900	Cover, LOUDNESS, AFC/MW, POWER Switch	3	141-2-368T-08500	Heat-sink, 2SB474 mtg.	2	141-6-424T-07900	Battery Sheet, UM-1 x 4	(1)	141-2-322T-18901	Heat-sink, 2SB324 mtg. (R1B Fin)	2	141-0-163T-07500	Rotary Knob Assembly, Tuning	(1)	141-2-322T-18100	Shield Plate, Parts Side	1	141-2-163T-22500	Rotary Knob, Sound Control	(2)	123-2-382R-00291	Shield Plate, Bottom Side	1	141-2-163T-22600	Rotary Knob, Main Volume, Tone	(2)	123-2-474R-00200	Terminal, Test Point	3	141-2-163T-26100	Rotary Knob, Fine Tuning	(1)	123-2-382R-00600	Tip, Test Point	5	141-0-162T-02900	Lever Knob Assembly, Band Select	(1)	141-2-336T-06800	Terminal, Tip mtg. (Rod Antenna)	1	141-2-352T-10200	Spacer, Tuning Knob	(1)	141-2-336T-09400	Terminal Battery, Spring Coil, (-)	1	<b>CHASSIS</b>						141-0-311T-17199	Chassis Assembly	1	141-2-336T-04903	Terminal Battery, Spring Plate, (-)	1	141-2-311T-17100	Chassis	(1)	123-2-472R-00400	Terminal Battery, Plate (+)	2	141-2-661T-19200	Pulley	(1)	141-2-472T-02000	Lug, Rod Antenna mtg.	2		Fiber Washer, 3.2 x 8 x 0.5mm	(1)	141-2-464T-08700	Lug, Tone	1	141-2-363T-04100	Dial Cord, 0.3 x 800mm	(1)	123-2-472R-11100	Fixer, Lead mtg.	2	141-2-365T-28200	Bracket, Fine Tuning Capacitor	(1)	4-235R-02200	Lug, Tone Volume	1	141-6-479T-11800	Bracket, Voltage Select Switch	(1)	123-2-472R-10700	Socket, Ext. Antenna, RP 8251	1		Label, Fuse 1.25 AT	(1)	4-226T-75299	Lug, Ext. Antenna, RP 8251	1				4-226T-752991	P.C.B. Assembly, RP 8252	1					P.C.B. Assembly, RP 8251	1	<b>Schematic Location</b>		<b>Part No.</b>	<b>Description</b>			<b>CONTROLS</b>						VC	4-224R-08400	Tuning Capacitor				CT2-1,202	4-224R-20700	Fine Tuning Capacitor				CT1	4-224R-02400	Trimmer, 8pF x 2				CT3	4-224R-01400	Trimmer, 8pF				R708	4-224R-01600	Trimmer, 16pF					4-222T-39100	Main Volume Control,				R717,728	4-222T-39300	100K ohms "B"						Sound Control, Woofer/Tweeter,						100K "C"			
141-6-472R-30620	Label, FTZ, RP 8252 E	1	141-2-446T-05601	Battery Holder	1																																																																																																																																																																																																																																																																																																																																																																											
123-6-472R-34800	Label, Made in Japan, RP 8252 G	1		Drum, Chassis mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
123-6-451R-11700	Guarantee Card, RP 8252 G	1		Pulley Shaft, Drum mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
<b>CABINET</b>																																																																																																																																																																																																																																																																																																																																																																																
141-0-111T-214912	Cabinet Assembly, Front, RP 8252 E	1	141-2-567-00800	Plate Nut, Pulley Shaft mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-126T-136916	Back Lid Assembly, RP 8252 E	1	4-151T-16000	Plastic Cushion, Indicator Upper	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-111T-214913	Cabinet Assembly, Front, RP 8252 ZM	1	4-151T-15900	Plastic Cushion, Tweeter Speaker mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-126T-136912	Back Lid Assembly, RP 8252 ZM	1	4-612T-02605	Bracket, Transformer mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-111T-214912	Cabinet Assembly, Front, RP 8252 G	1	4-511T-05900	Spacer, Tuning Capacitor mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-126T-136914	Back Lid Assembly, RP 8252 G	1	4-256T-80400	Drum, Tuning Capacitor mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-111T-214911	Cabinet Assembly, Front, RP 8251 SS/AS	1	or 4-256T-80471	Spring Coil	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-126T-136911	Back Lid Assembly, RP 8251 SS/AS	1	or 4-256T-80472	Pulley, Pulley Shaft mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-210T-002912	Bracket Assembly, Dial Scale & Mechanism, RP 8252	1	or 4-256T-80473	Pulley Shaft, P.C.B. mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-146T-03402	Dial Scale, RP 8252	(1)	or 4-256T-80474	Tuning Shaft Assembly	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-210T-00200	Bracket	(1)	4-244R-12200	Rubber Cushion, 3.5 x 6 x 3.5mm, Bracket	2																																																																																																																																																																																																																																																																																																																																																																											
141-2-329T-03300	Reflector	(1)	4-235T-26800	Soft Tape, 10 x 10 x 3mm, Drum	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-538T-02900	Drum	(1)	4-235T-26900	Plastic Cushion, Indicator	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-581T-02300	Gear, Drum mtg.	(1)	4-235T-29700	Plastic Cushion, Tweeter Speaker mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-851T-81700	Spring Coil, Gear mtg.	(1)	4-235T-23100	Bracket, Transformer mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-853T-37100	Spring Plate	(1)	4-243T-76401	Spacer, Tuning Capacitor mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
123-2-210R-20100	Bracket, Gear Shaft	(1)	4-243R-14501	Drum, Chassis mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
123-2-581R-11100	Gear, Dial Scale	(1)	4-243T-74900	Pulley Shaft, Drum mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
R-Y112304	Type Screw, Pan Hd. 2.3 x 4mm	(1)	4-243T-73971	Pulley Shaft, P.C.B. mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-210T-002911	Bracket Assembly, Dial Scale & Mechanism, RP 8251	1	4-234T-03100	Tuning Shaft Assembly	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-146T-03401	Dial Scale, RP 8251	(1)	141-2-381T-01800	Power Cord Assembly, RP 8252E	1																																																																																																																																																																																																																																																																																																																																																																											
	Rubber Cushion, 3.5 x 6 x 3.5mm, Light	(1)	141-2-381T-01800	Power Cord Assembly, RP 8252 ZM	1																																																																																																																																																																																																																																																																																																																																																																											
	Rubber Cushion, 5 x 10 x 13mm, Speaker	(1)	141-2-381T-01800	Power Cord Assembly, RP 8252 G	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-161T-22400	Push Button, Light	(1)	141-2-336T-01800	Fuse 1.25A (SEMKO)	1																																																																																																																																																																																																																																																																																																																																																																											
141-0-128T-02300	Battery Lid Assembly	(1)	141-2-336T-01800	Bracket, Fuse	2																																																																																																																																																																																																																																																																																																																																																																											
141-2-372T-03300	Bracket, Speaker mtg. (Large)	(1)	123-2-471R-10400	Core, Q102,103 mtg.	2																																																																																																																																																																																																																																																																																																																																																																											
141-2-372T-03100	Bracket, Speaker mtg. (Small)	(1)	141-2-135T-32200	Cover, Power Socket mtg.	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-135T-32900	Cover, LOUDNESS, AFC/MW, POWER Switch	3	141-2-368T-08500	Heat-sink, 2SB474 mtg.	2																																																																																																																																																																																																																																																																																																																																																																											
141-6-424T-07900	Battery Sheet, UM-1 x 4	(1)	141-2-322T-18901	Heat-sink, 2SB324 mtg. (R1B Fin)	2																																																																																																																																																																																																																																																																																																																																																																											
141-0-163T-07500	Rotary Knob Assembly, Tuning	(1)	141-2-322T-18100	Shield Plate, Parts Side	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-163T-22500	Rotary Knob, Sound Control	(2)	123-2-382R-00291	Shield Plate, Bottom Side	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-163T-22600	Rotary Knob, Main Volume, Tone	(2)	123-2-474R-00200	Terminal, Test Point	3																																																																																																																																																																																																																																																																																																																																																																											
141-2-163T-26100	Rotary Knob, Fine Tuning	(1)	123-2-382R-00600	Tip, Test Point	5																																																																																																																																																																																																																																																																																																																																																																											
141-0-162T-02900	Lever Knob Assembly, Band Select	(1)	141-2-336T-06800	Terminal, Tip mtg. (Rod Antenna)	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-352T-10200	Spacer, Tuning Knob	(1)	141-2-336T-09400	Terminal Battery, Spring Coil, (-)	1																																																																																																																																																																																																																																																																																																																																																																											
<b>CHASSIS</b>																																																																																																																																																																																																																																																																																																																																																																																
141-0-311T-17199	Chassis Assembly	1	141-2-336T-04903	Terminal Battery, Spring Plate, (-)	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-311T-17100	Chassis	(1)	123-2-472R-00400	Terminal Battery, Plate (+)	2																																																																																																																																																																																																																																																																																																																																																																											
141-2-661T-19200	Pulley	(1)	141-2-472T-02000	Lug, Rod Antenna mtg.	2																																																																																																																																																																																																																																																																																																																																																																											
	Fiber Washer, 3.2 x 8 x 0.5mm	(1)	141-2-464T-08700	Lug, Tone	1																																																																																																																																																																																																																																																																																																																																																																											
141-2-363T-04100	Dial Cord, 0.3 x 800mm	(1)	123-2-472R-11100	Fixer, Lead mtg.	2																																																																																																																																																																																																																																																																																																																																																																											
141-2-365T-28200	Bracket, Fine Tuning Capacitor	(1)	4-235R-02200	Lug, Tone Volume	1																																																																																																																																																																																																																																																																																																																																																																											
141-6-479T-11800	Bracket, Voltage Select Switch	(1)	123-2-472R-10700	Socket, Ext. Antenna, RP 8251	1																																																																																																																																																																																																																																																																																																																																																																											
	Label, Fuse 1.25 AT	(1)	4-226T-75299	Lug, Ext. Antenna, RP 8251	1																																																																																																																																																																																																																																																																																																																																																																											
			4-226T-752991	P.C.B. Assembly, RP 8252	1																																																																																																																																																																																																																																																																																																																																																																											
				P.C.B. Assembly, RP 8251	1																																																																																																																																																																																																																																																																																																																																																																											
<b>Schematic Location</b>		<b>Part No.</b>	<b>Description</b>																																																																																																																																																																																																																																																																																																																																																																													
<b>CONTROLS</b>																																																																																																																																																																																																																																																																																																																																																																																
VC	4-224R-08400	Tuning Capacitor																																																																																																																																																																																																																																																																																																																																																																														
CT2-1,202	4-224R-20700	Fine Tuning Capacitor																																																																																																																																																																																																																																																																																																																																																																														
CT1	4-224R-02400	Trimmer, 8pF x 2																																																																																																																																																																																																																																																																																																																																																																														
CT3	4-224R-01400	Trimmer, 8pF																																																																																																																																																																																																																																																																																																																																																																														
R708	4-224R-01600	Trimmer, 16pF																																																																																																																																																																																																																																																																																																																																																																														
	4-222T-39100	Main Volume Control,																																																																																																																																																																																																																																																																																																																																																																														
R717,728	4-222T-39300	100K ohms "B"																																																																																																																																																																																																																																																																																																																																																																														
		Sound Control, Woofer/Tweeter,																																																																																																																																																																																																																																																																																																																																																																														
		100K "C"																																																																																																																																																																																																																																																																																																																																																																														

## PARTS LIST

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
<b>CONTROLS</b>					
R730 R355 S1	4-222T-39200 4-222T-03100 4-231T-50300	Tone Control, 100K ohms "W" Mini-pot, Meter Adjust, 2K ohms Rotary Slide Switch, Band Select Switch	T305	4-256T-080300	IF Transformer, AM 460 kHz, RP 8252 E/ZM
S2,3 S5 S5 S6 S8 S7 S7	4-231T-17200 123-2-483R-14300 123-2-382R-17800 4-231R-17250 4-231T-42100 4-231T-37600 4-231T-37602	Slide Switch, AFC/MW, Loudness Spring plate, Light Switch Terminal, Light Switch Slide Switch, Power Switch Slide Switch, Phono/Radio Switch Switch, 120/200/240 V, RP8251 Switch, 120/220/240V, RP 8252ZM	T305	4-256T-07200	IF Transformer, AM 470 kHz, RP 8252 G
<b>SEMICONDUCTORS</b>					
Q101,301, 303 Q102,103, 302,304 Q305,701, 705 Q702,706 Q703,704 Q707,708 Q709 D101,301, 303,304 D102 D103,104, 107,108, 305 D105,302 D106,306 D701 D702 D703 TH301 TH701,702, 703	2SC930E 2SC930D 2SC536F 2SC536G 2SB324E 2SB474R or 2SB474Y 2SB187R 1S188FM 1S553 DS442 1S188AM MV11T DS131 DS132 YZ060 SDT-1000 SDT-06	Transistor, 2SC930E Transistor, 2SC930D Transistor, 2SC536F Transistor, 2SC536G Transistor, 2SB324E Transistor, 2SB474Red Transistor, 2SB474Yellow Pair only Transistor, 2SB187 Transistor, 2SB187Red Diode, 1S188FM Diode, 1S553 Diode, DS442 Diode, 1S188AM Diode, MV11T 1.21-1.27V Diode, DS131 Diode, DS132 Diode, YZ060 Thermistor, SDT-1000 Thermistor, SDT-06	T306 T701 T702 T703 T704 T704 T704	4-256R-00230 4-254R-02300 4-254T-11400 4-254T-13200 4-251T-39500 4-251T-40300 4-251T-39600 4-251T-39700	IF Transformer, AM Input Transformer, Tweeter Input Transformer, Woofer Output Transformer, Woofer Power Transformer, AC 220V, RP 8252E Power Transformer, AC 120/200/240V, RP 8251 Power Transformer, AC120/220/240V, RP 8252 ZM Power Transformer, AC 240V, RP 8252G RP 8252G
<b>CAPACITORS (Ceramic)</b>					
All capacitors are ceramic type, 50V unless otherwise specified.					
L101,102, 105,111, 116 L101,102, 105,111 L117 L112 L103 L104 L106 L107 L110 L110 L109 L109 L108 L108 L114 L115 L113 L115 L113	4-265R-05000 4-265R-05000 4-265R-11200 4-265R-01300 4-265R-00300 4-265R-12000 4-265R-14800 4-253R-11160 4-257T-12101 4-257T-12201 4-257R-11730 4-257R-27300 4-253R-10700 4-255R-10700 4-258R-28100 4-258T-09300 4-258T-11100 4-258R-28200 4-258R-28340	VHF Coil, 6-1/2 turns, RP 8251 VHF Coil, 6-1/2 turns, RP 8252 VHF Coil, 16-1/2 turns, RP 8251 VHF Coil, 3-1/2 turns VHF Coil, 3-1/2 turns VHF Coil, 3-1/2 turns VHF Coil, 3-1/2 turns RF Chork Coil, 1 $\mu$ H Antenna Coil Assembly, MW/SW1, RP 8251 Antenna Coil Assembly, LW/MW, RP 8252 Antenna Coil, SW2, RP 8251 Antenna Coil, SW, RP 8252 Choke Coil, 39 $\mu$ H RP 8252 Choke Coil, 15 $\mu$ H RP 8251 Oscillator Coil, MW Oscillator Coil, SW1, RP 8251 Oscillator Coil, SW2, RP 8251 Oscillator Coil, LW, RP 8252 Oscillator Coil, SW, RP 8252	C319 C331 C136 C107 C117 C101,113 C111 C116,123, 130 C301 C103 C118 C102 C123,117 C127 C115,121 C112 C118 C116 C137 C106 C108 C104,320 C130 C324 C131,321,322, 722 C109 C303 C114,120,133, 305,311,135 C105,132,304, 306,308,309 314,318,327, 328,330,730, 731,733,734, 736,737,110, 735 C317,710	R-CKD010C R-CKD020C R-CKD030D R-CKD030C R-CKD030D R-CKD050D R-CKD050C R-CKD050D R-CKD100K R-CKD100K R-CKD120K R-CKD150K R-CKD220J R-CKD220K R-CKD130K R-CKD220K R-CKD250J R-CKD250K R-CKD300K R-CKD600J R-CKD101M R-CKD201M R-CKD501M R-CKD102Z R-CKD103Z R-CKD203Z R-CKD104M	1pF $\pm$ 0.25pF 2pF $\pm$ 0.25pF 3pF $\pm$ 0.5pF RP 8252 3pF $\pm$ 0.25pF 3pF $\pm$ 0.5pF 5pF $\pm$ 0.5pF 5pF $\pm$ 0.25pF 5pF $\pm$ 0.5pF RP 8251 6pF $\pm$ 0.5pF 8pF $\pm$ 0.5pF 8pF $\pm$ 0.5pF RP 8251 10pF $\pm$ 10% 10pF $\pm$ 10% 12pF $\pm$ 10% 15pF $\pm$ 10% 22pF $\pm$ 5% N470 22pF $\pm$ 10% RP 8252 13pF $\pm$ 10% RP 8252 22pF $\pm$ 10% RP 8251 25pF $\pm$ 5% 25pF $\pm$ 10% 30pF $\pm$ 10% 60pF $\pm$ 5% RP 8252 100pF $\pm$ 20% 200pF $\pm$ 20% 500pF $\pm$ 20% 0.001mfd +80, -20% 0.01mfd +80, -20% 0.02mfd +80, -20%
<b>COILS</b>					
<b>CAPACITORS (Mylar)</b>					
All capacitors are mylar type, 50V unless otherwise specified.					
T301 T302 T303 T304 T305	4-256R-20830 4-256R-19530 4-256R-15130 4-256R-02330 4-256T-06000	IF Transformer, FM IF Transformer, FM IF Transformer, FM IF Transformer, FM IF Transformer, AM 455 kHz, RP 8251	C302,725,738 C729 C124 C125 C727 C701 C119 C128 C703 C134,315,713 C110,727,745 C307,313,309, 350 C124,325 C719	R-CQS102M R-CQS332M R-CQS332M R-CQS332M R-CQS392M R-CQS472M R-CQS472M R-CQS472M R-CQS682M R-CQS103M R-CQS103M R-CQS203M R-CQS203M R-CQS203M R-CQS333M	0.001mfd $\pm$ 20% 0.0033mfd $\pm$ 20% 0.0033mfd $\pm$ 20% RP 8251 0.0033mfd $\pm$ 20% RP 8252 0.0039mfd $\pm$ 20% 0.0047mfd $\pm$ 20% 0.0047mfd $\pm$ 20% RP 8251 0.0047mfd $\pm$ 20% RP 8252 0.0068mfd $\pm$ 20% 0.01mfd $\pm$ 20% 0.01mfd $\pm$ 20% RP 8252 0.02mfd $\pm$ 20% RP 8252 0.02mfd $\pm$ 20% 0.033mfd $\pm$ 20%
<b>TRANSFORMERS</b>					

## PARTS LIST

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
<b>CAPACITORS (Mylar)</b>					
C712	R-CQS393M	0.039mfd ±20%	R112,303,724,	R-R471K	470 ohm
C316	R-CQS473M	0.047mfd ±20%	750		
C704	R-CQS683M	0.068mfd ±20%	R118,712,715,	R-R561K	560 ohm
C720	R-CQS823M	0.082mfd ±20%	726		
C715	R-CQS203M	0.02mfd ±20% RP 8251	R746	R-R821K	820 ohm
C701	R-CQS682M	0.0068mfd ±20% RP 8252G	R101,104,304,	R-R102K	1K ohm
C715,716	R-CQS102M	0.001mfd ±20% RP 8252	307,311,318,		
C302	R-CQS152M	0.0015mfd ±20%	322,323,327,		
C129	R-CQT141J	Styrol 140pF ±5% 125V, RP 8252	713,704,743		
C126	R-CQT271J	Styrol 270pF ±5% 125V	R109	R-R122K	1.2K ohm
C129	B-CQT302J	Styrol 1200pF ±5% 125V, RP 8251	R330	R-R182K	1.8K ohm
C122	R-CQT302J	Styrol 3000pF ±5% 125V, RP 8252	R120,703,705,	R-R222K	2.2K ohm
C122	R-CQT342J	Styrol 3400pF ±5% 125V, RP 8251	711,718,731,		
C326,702,708	R-C9126	Electrolytic 0.1mfd 10V	737		
721			R315	R-R272K	2.7K ohm
C310	R-C9175	Electrolytic 0.47mfd 10V	R125,328,714,	R-R332K	3.3K ohm
C329,705	R-C9251	Electrolytic 1mfd 6.3V	729,745		
C323,707,724	R-C9882	Electrolytic 4.7mfd 6.3V	R739	R-R392K	3.9K ohm
C312,718	R-C9205	Electrolytic 10mfd 6.3V	R736	R-R472K	4.7K ohm
C723		Electrolytic 22mfd 6.3V	R111,126	R-R562K	5.6K ohm
C711,714,728	R-C9808	Electrolytic 100mfd 6.3V	R105,119,324,	R-R562K	5.6K ohm
C717	R-C9879	Electrolytic 220mfd 10V	325		
C706,709,726	R-C9875	Electrolytic 220mfd 6.3V	R111	R-R682K	6.8K ohm
C732	R-C9930	Electrolytic 2200mfd 10V	R721,720,738	R-R682K	6.8K ohm
<b>RESISTORS</b>					
All Resistors are carbon type, ±10% and 1/4W unless otherwise specified.					
R723,735	R-R3R3K	3.3 ohm	R710	R-R273K	27K ohm
R116	R-R5R6K	5.6 ohm	R117	R-R333K	33K ohm
R115	R-R100K	10 ohm	R706	R-R393K	39K ohm
R115	R-R220K	22 ohm	R302,332	R-R473K	47K ohm
R113,308	R-R220K	22 ohm	R733,732	R-R563K	56K ohm
R316	R-R330K	33 ohm	R707	R-R683K	68K ohm
R103,716,744, 752	R-R560K	56 ohm	R702	R-R823K	82K ohm
R725,727	R-R680K	68 ohm	R329,331	R-R104K	100K ohm
R106,110,740	R-R101K	100 ohm	R734	R-R184K	180K ohm
R747	R-R121K	120 ohm	R701,751	R-R224K	220K ohm
R320,314	R-R151K	150 ohm	R102,114	R-R334K	330K ohm
R121,722,741, R321	R-R221K	220 ohm	R107	R-R105K	1M ohm
R301,306,313, 319,742	R-R271K	270 ohm	R702	R-R394K	390K ohms
	R-R331K	330 ohm	R748	R-R0R2J	RP 8252 Winding type 0.22 ohm ±5% 1W
			R760	R-R102K	1K ohms

# ALIGNMENT INSTRUCTIONS (Model RP 8251 SS/AS)

## MW BAND – Band selector switch in MW position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Output Meter	Adjust	Remarks
1	Loop Antenna	455 kHz	Lowest End	Across Speaker	IFT T305, T306	Adjust for Maximum
2	Same	505 kHz (595 m)	Lowest End	Same	Osc. Coil L114	Same
3	Same	1650 kHz	Highest End	Same	Osc. Trim CT3	Same
4	Same	600 kHz (500 m)	600 kHz (500 m)	Same	Ant. Coil L110a	Same
5	Same	1400 kHz (214 m)	1400 kHz (214 m)	Same	Ant. Trim VCT1-3	Same

## SW1 BAND – Band selector switch in SW1 position

7	Loop Antenna	2.2 MHz	Lowest End	Across Speaker	Osc. Coil L115	Adjust for Maximum
8	Same	7.6 MHz	Highest End	Same	Osc. Trim CT2-2	Same
9	Same	2.5 MHz	2.5 MHz	Same	Ant. Coil L110b	Same
10	Same	6.5 MHz	6.5 MHz	Same	Ant. Trim VCT1-4	Same
11	Repeat steps 7 thru 10 to obtain maximum sensitivity.					

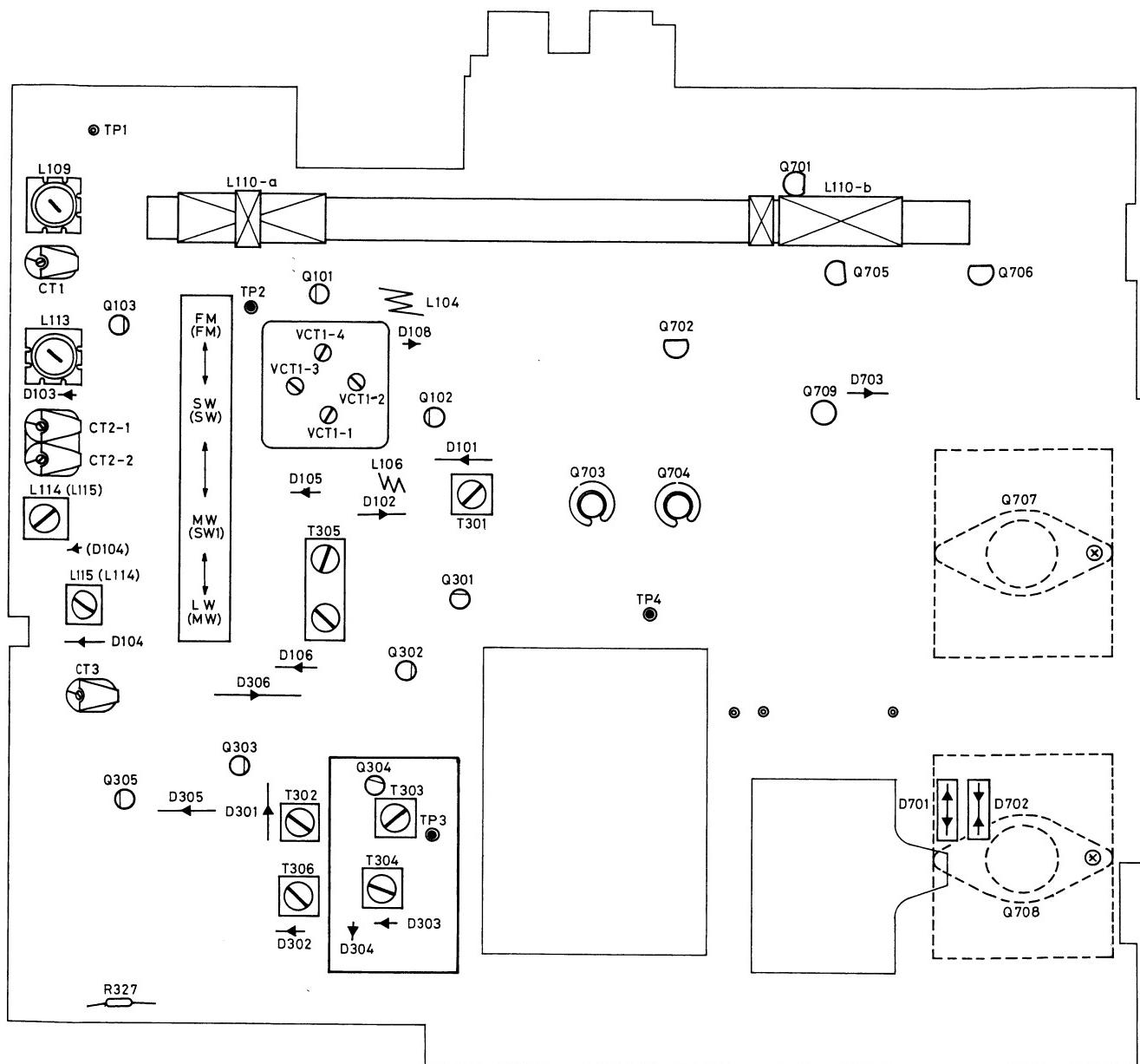
## SW2 BAND – Band selector switch in SW2 position

12	Thru Dummy Antenna to TP1 and TP2.	5.75 MHz	Lowest End	Across Speaker	Osc. Coil L113	Adjust for Maximum
13	Same	23.0 MHz	Highest End	Same	Osc. Trim CT2-1	Same
14	Same	8.0 MHz	8.0 MHz	Same	Ant. Coil L109	Same
15	Same	21 MHz	21 MHz	Same	Ant. Trim CT1	Same
16	Repeat steps 12 and 15 to obtain maximum sensitivity.					

## FM BAND – Band selector switch in FM position

17	Connect Sweep Marker Generator to TP.1 and TP.2.			Connect scope input cable thru network to TP.3 and TP.4.	IFT T301, T302 & T303	Adjust for maximum sensitivity with symmetrical curve.
18	Same	10.7 MHz	Lowest End	Connect scope input cable thru network to TP.3 and TP.4.	IFT T304	Adjust for symmetrical "S" curve.
19	Connect Signal Generator to TP.1 and TP.2	87 MHz	87 MHz	Connect V.T.V.M. across speaker	Osc. Coil L106	Adjust for maximum.
20	Same	109 MHz	109 MHz	Same	Osc. Trimmer VCT1-2	Same
21	Same	90 MHz	90 MHz	Same	RF Coil L104	Same
22	Same	108 MHz	108 MHz	Same	RF Trimmer VCT1-1	Same
23	Repeat steps 19 thru 22 to obtain maximum sensitivity.					

## **MAIN PARTS IDENTIFICATION.**



# ALIGNMENT INSTRUCTIONS ( Model RP 8252 E/ZM/G )

---

## MW BAND – Band selector switch in MW position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Output Meter	Adjust	Remarks
1	Loop Antenna (Aerial)	460 kHz (470)	Lowest End	Across Speaker	IFT T305, & T306	Adjust for Maximum
2	Same	505 kHz (595 m)	Lowest End	Same	Osc. Coil L114	Same
3	Same	1650 kHz	Highest End	Same	Osc. Trim CT2-2	Same
4	Same	600 kHz (500 m)	600 kHz (500 m)	Same	Ant. Coil L110b	Same
5	Same	1400 kHz (214 m)	1400 kHz (214 m)	Same	Ant. Trim VCT1-4	Same

## LW BAND – Band selector switch in LW position

7	Loop Antenna	145 kHz (2060 m)	Lowest End	Across Speaker	Osc. Coil L115	Adjust for Maximum
8	Same	365 kHz (825 m)	Highest End	Same	Osc. Trim CT3	Same
9	Same	160 kHz (1870 m)	160 kHz (1870 m)	Same	Ant. Coil L110a	Same
10	Same	340 kHz (880 m)	340 kHz (880 m)	Same	Ant. Trim VCT1-3	Same
11	Repeat steps 7 thru 10 to obtain maximum sensitivity.					

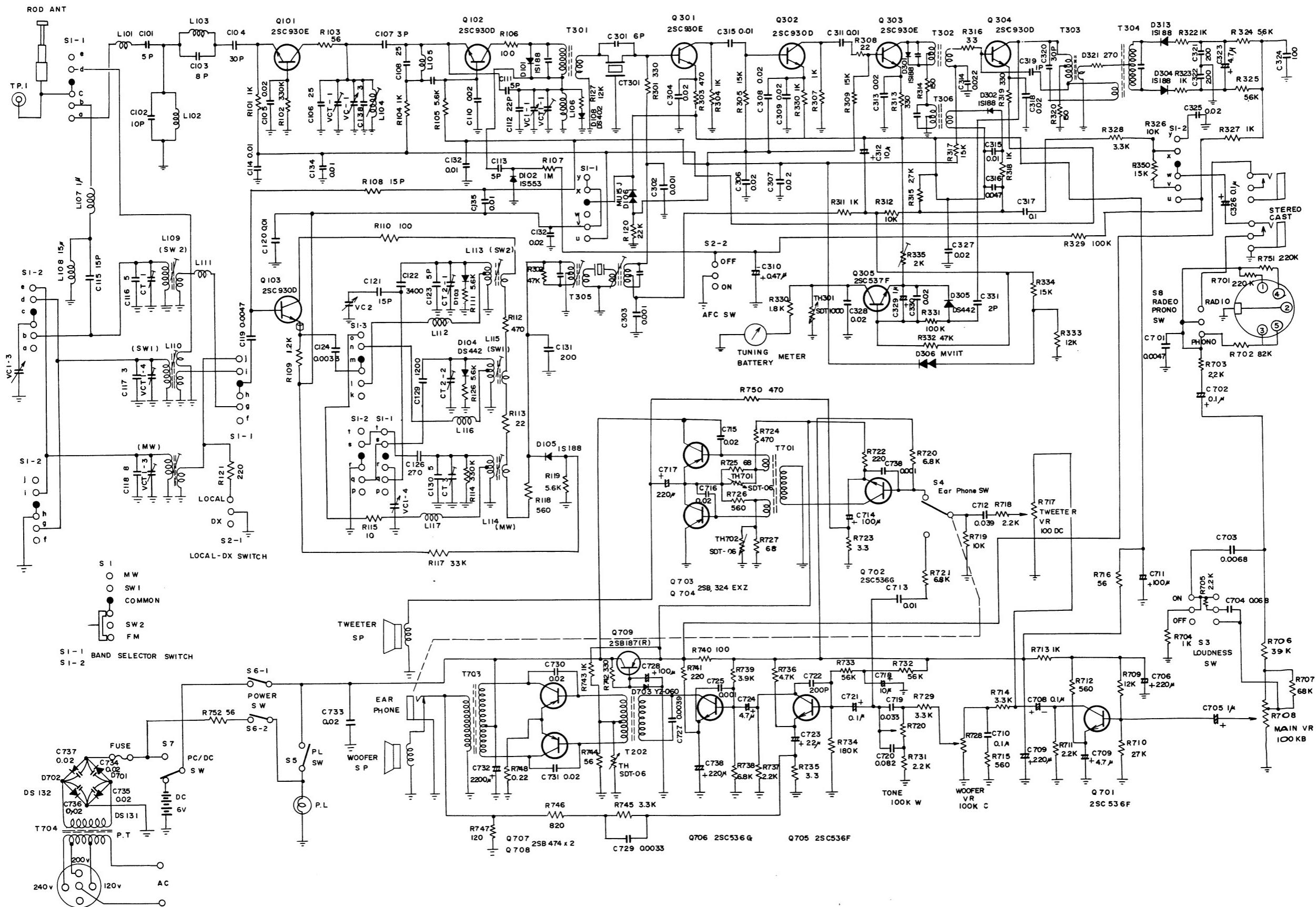
## SW BAND – Band selector switch in SW position

12	Thru Dummy Antenna to TP1 and TP2.	5.85 MHz	Lowest End	Across Speaker	Osc. Coil L113	Adjust for Maximum
13	Same	19.0 MHz	Highest End	Same	Osc. Trim CT2-1	Same
14	Same	6.5 MHz	6.5 MHz	Same	Ant. Coil L109	Same
15	Same	17.5 MHz	17.5 MHz	Same	Ant. Trim CT1	Same
16	Repeat steps 12 and 15 to obtain maximum sensitivity.					

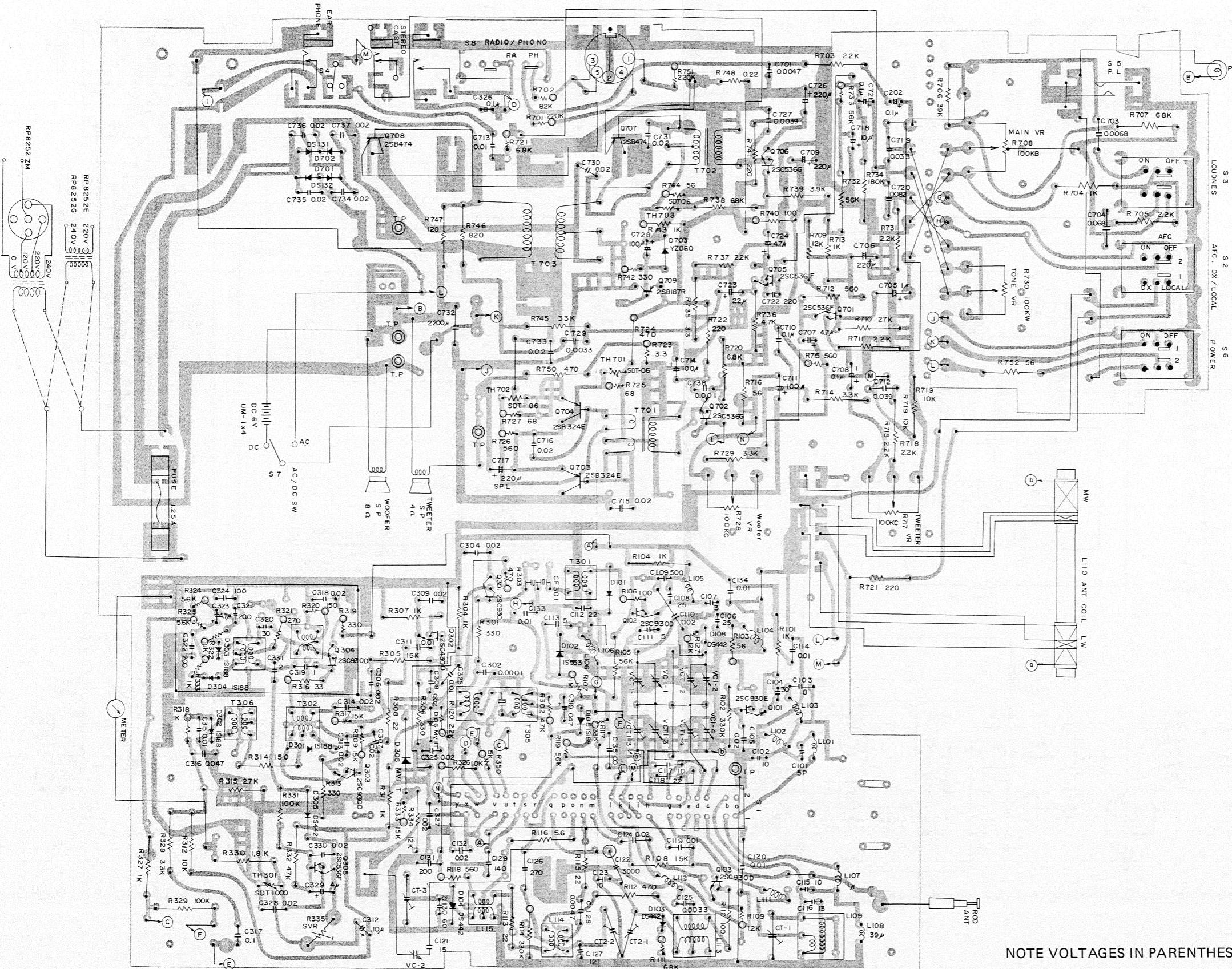
## FM BAND – Band selector switch in FM position

17	Connect Sweep Marker Generator to TP.1 and TP.2.			Connect scope input cable thru network to TP.3 and TP.4.	IFT T301,T302 & T303	Adjust for maximum sensitivity with symmetrical curve.
18	Same	10.7 MHz	Lowest End	Connect scope input cable thru network to R327 and TP.4	IFT T304	Adjust for symmetrical "S" curve.
19	Connect Signal Generator to TP.1 and TP.2	87 MHz	Lowest End	Connect V.T.V.M. across speaker	Osc. Coil L106	Adjust for maximum.
20	Same	109 MHz	Highest End	Same	Osc. Trimmer VCT1-2	Same
21	Same	90 MHz	90 MHz	Same	RF Coil L105	Same
22	Same	106 MHz	106 MHz	Same	RF Trimmer VCT1-2	Same
23	Repeat steps 19 thru 22 to obtain maximum sensitivity.					

## SCHEMATIC DIAGRAM (Model RP8251 SS/AS).

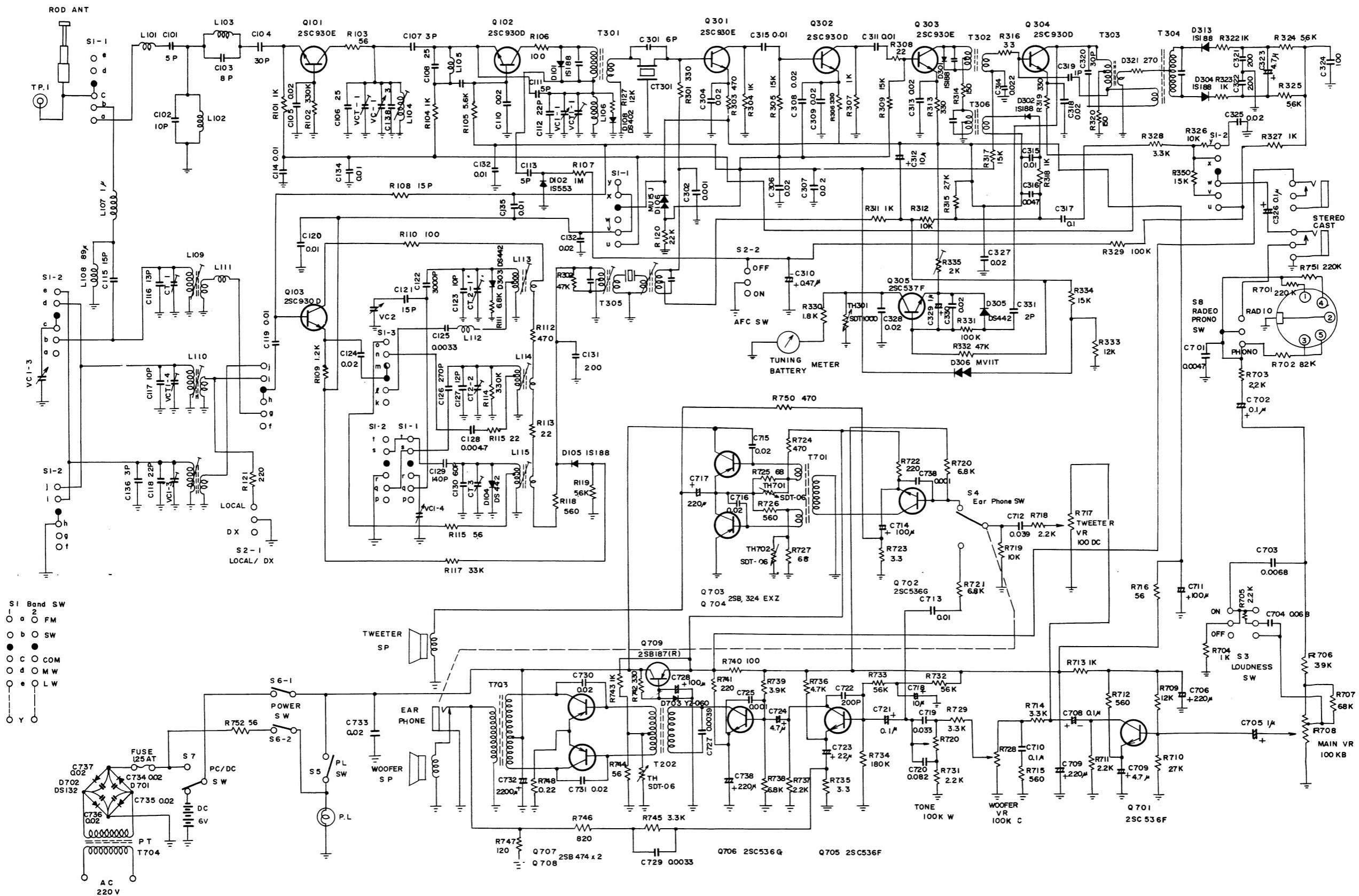


CIRCUIT BOARD DIAGRAM (Bottom View) (Model RP8252E/ZM/G)



NOTE VOLTAGES IN PARENTHESIS FOR FM OPERATION.

## **SCHEMATIC DIAGRAM (Model RP8252E/G)**



CIRCUIT BOARD DIAGRAM (Bottom View) (Model RP8251 SS/AS)

Q701 2SC536F

C: (2.0V)

B: (2.6V)

E: (3.3V)

Q702 2SC536G

C: (1.0V)

B: (2.9V)

E: (3.6V)

Q703 2SB324E

C: (6.0V)

B: (2.8V)

E: (2.7V)

Q704 2SB324E

C: (2.7V)

B: (0.18V)

E: (0V)

Q705 2SC536F

C: (0.6V)

B: (2.8V)

E: (3.6V)

Q706 2SC536G

C: (0.8V)

B: (3.0V)

E: (3.7V)

Q707 2SB474

Q708 2SB474

C: (6.0V)

B: (0.1V)

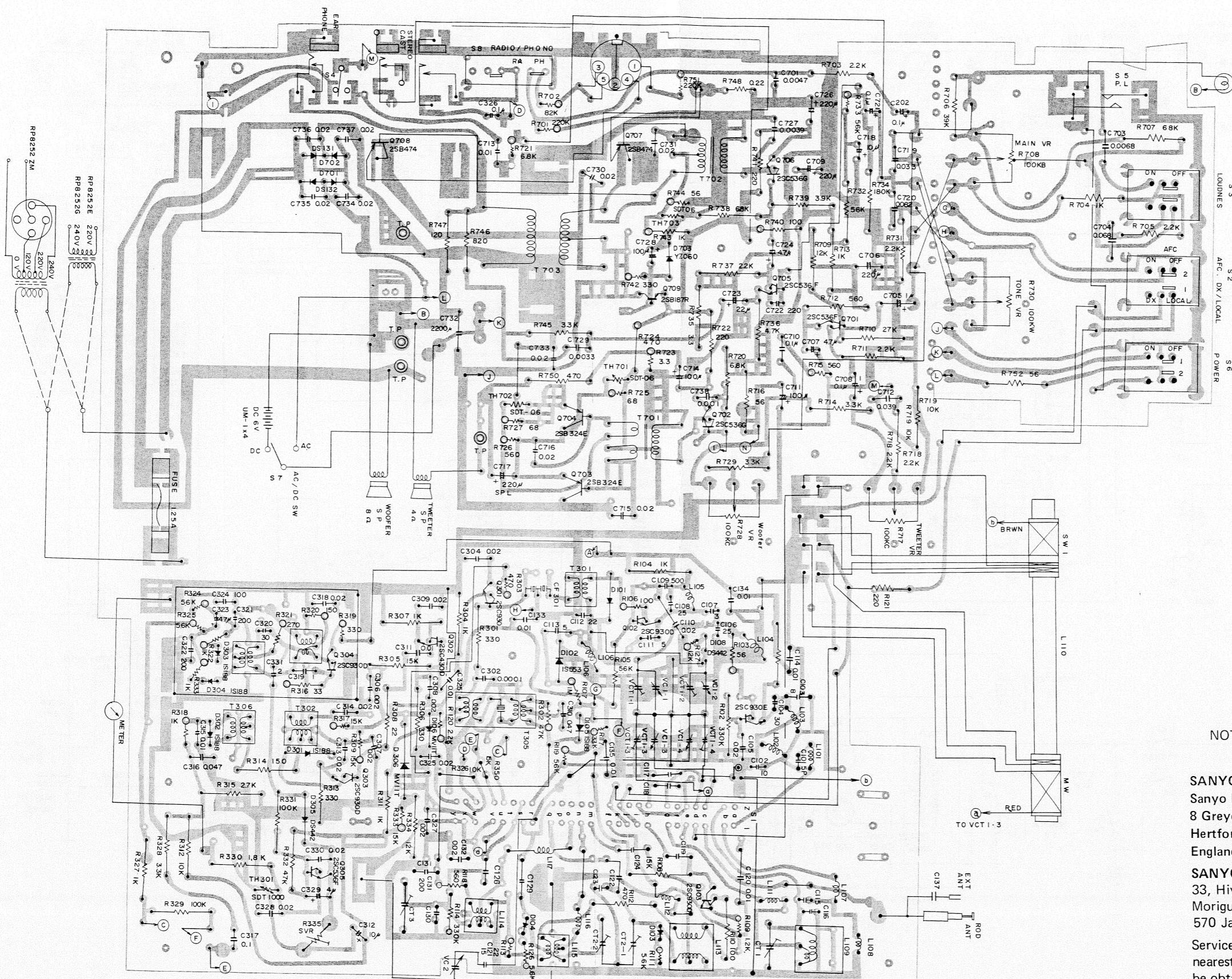
E: (0.05V)

Q709 2SB187

C: (6.0V)

B: (5.7V)

E: (5.5V)



# MODIFICATION NOTICE

## PORTABLE RADIO

Chassis Nos. \_\_\_\_\_  
Serial Nos. \_\_\_\_\_  
Run Nos. \_\_\_\_\_  
Date \_\_\_\_\_

Date Jun. 10, 1977 Issued by \_\_\_\_\_



# SANYO

RP 8251	RP 8252ZM
RP 8251 (AUS)	RP 8252E
RP 8252	RP 6850 (USA)
RP 8252G	RP 6850 (CANADA)

The following corrections should be made in the SERVICE MANUALS and PARTS (PRICE) LIST.

Section	Ref. No.	Original Part No.	New Part No.	Description	Reason
Controls	S2,3	4-231T-17200	4-231R-17200	Slide switch AFC/MW, Loudness	E

### REASON FOR MODIFICATION

A .... Standardization  
B .... Change of materials

C .... Improvement of reliability      E .... Miss print  
D .... Improvement of performance

SANYO ELECTRIC TRADING CO., LTD.  
OSAKA, JAPAN